



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RB T102137-107-105
Job Sheet 171725



Part No: RB T102137-107-105

Job Qty: 6 ea

Part Name: Strap



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 2/8/18

Job Tracking No:

Due Date: 2/16/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RB T102137-107 Rev3 IPP Rev A 17.12.07 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	6 Ea		2/15/18	0.00	0.00	Start Up Machining-3		SL 18-2-25
110	Mori Seiki	6 pcs		2/16/18	0.00	1.50	MORI SL-154		SL
120	QC	6 pcs		2/16/18	0.00	0.00	QC2 Machining-4		SL
150	QC	6 pcs		2/16/18	0.00	0.00	QC8 Machining-4		SL
151	QC	6 pcs		2/16/18	0.00	0.00	QC5		SL
152	Outsource	6 pcs		2/16/18	0.00	0.00	Outsource1		SL
153	Packaging	6 pcs		2/16/18	0.00	0.00	Packaging2		SL
154	QC	6 pcs		2/16/18	0.00	0.00	QC6		SL
210	Packaging	6 pcs		2/16/18	0.00	0.00	Packaging3-1		SL
220	QC21-SA	6 Ea		2/16/18	0.00	0.00	QC21		SL

Part Op 110 - 1-Machine as per folio FB 844 FOLIO REV: DWG REV: 2-Debur

Descriptions: 152 - 1-Issue P/O to Metcore ; P/O 035181 RC 46-50 2-Bead blast 3- Certificate of Conformity is required

154 - ***NOTE*** Cad plating to be done after load test at final assembly.

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M4140NR0.625	4140 Steel Round Bar 0.625"	2.4000 ft (.4 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M4140NR0.625	2 3.0	0	0

Part Specifications

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

uld not be found.

Plex 2/8/18 6:23 AM Dart.lajeunesse.marie



Container No: S045107



Part: RB T102137-107-105

Job No: 171725

Serial No/Batch: S045107

Revision: RB T102137-107

Inspector:

Date: 02/25/18

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :	Step #:	QTY Effective :	MRB (QSI042) Approval
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Description Work Order Deviation	Disposition	Completed By
		Lead hand / Supervisor Approval Verification
		QC / QA Coordinator Approval

Root Cause <table> <tr> <td>Environment ☐</td> <td>No Re-verification ☐</td> <td>Pressure/Forced ☐</td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> <td>Bending ☐</td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td>Centre Not Concentric ☐</td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td>Cracks ☐</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td>Crimp/Kink/Ripple/Wave ☐</td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td>Cuffs ☐</td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td>Crushing ☐</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td>Heat Treat ☐</td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td>Wave/Twist in Tube ☐</td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td>Marks/Chatter ☐</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td></td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> <td></td> </tr> </table>		Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Design ☐	Operator ☐	Bending ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Past Expiry Date ☐	Manufacturing Process ☐		Misidentified ☐	Past Due ☐		FAULT CATEGORY <table> <tr> <td>Temperature/Cure ☐</td> <td>Power Loss/Surge ☐</td> <td>Positioned Wrong ☐</td> </tr> <tr> <td>Set-up ☐</td> <td>Folio/Program ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>BOM/Route ☐</td> <td>Grain ☐</td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Broken/Damage/Defect ☐</td> <td>Weld ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Inspection Incomplete/Unqualified ☐</td> <td>Wrong Stock Pulled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Contamination ☐</td> <td>Out of Sequence ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Countersink ☐</td> <td>Off-set ☐</td> <td>Drawing ☐</td> </tr> <tr> <td>Cut Too Short ☐</td> <td>Mislabeled ☐</td> <td>Finish ☐</td> </tr> <tr> <td>Instructions Incomplete/Unclear ☐</td> <td>Fit/Function ☐</td> <td>Misread ☐</td> </tr> <tr> <td>Drill Holes ☐</td> <td>Misaligned/off center ☐</td> <td>Turning Sequence ☐</td> </tr> </table>		Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Countersink ☐	Off-set ☐	Drawing ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date: _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
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OTHER : _____					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO039181

Supplier: MEI001-VC
Metcor Inc.
560 Boul. Arthur Sauve
Saint-Eustache
QC
J7R 5A8 Canada
Phone: 450 473 1884
Fax: 450 491 5498

PO No: PO039181

PO Date: 3/2/18

Due Date: 3/20/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lacelle, Linda Phone: \$
llacelle@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	171547	D2741	Replacement Blade Issue P/O: <u> </u> HARDEN MATERIAL: ULTIMATE TENSILE STRENGTH = 152 KSI MINIMUM YIELD TENSILE STENGHT = 141 KSI (34-40 HRC) SAND BLAST PART AFTER HEAT TREAT \	Firmed	3/27/18	38 pcs	0 pcs	38 pcs	\$18.395263/pcs	\$699.02
* <i>38x AT 18/03/22</i>										

Line Item Note part made from 4130 bar

10 171726 RB Sleeve
T102137- 1--Issue P/O to Metcore ;
107-107 P/O
RC 32-37
2-Bead blast
3- Certificate of
Conformity is required

Firmed 3/20/18

6 pcs 0 pcs 6 pcs \$50.00/pcs \$300.00

6x AT 18/03/23

Line Item Note part made from 4140N round bar 0.875"

11 171725 RB Strap
T102137- 1--Issue P/O to Metcore ;
107-105 P/O
RC 46-50
2-Bead blast
3- Certificate of
Conformity is required

Firmed 3/20/18

6 pcs 0 pcs 6 pcs \$50.00/pcs \$300.00

6x AT 18/03/23

Line Item Note part made from 4140N round bar 0.625"

Grand Total: \$1,299.02

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
325894	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
PO039181	N/A	4140		
SPÉCIFICATIONS DU PROCÉDÉ processing specifications				
SEL HARDEN				
HARDEN AND TEMPER				
EXIGENCE / requirement	SPÉCIFICATIONS / specified TESTS EXÉCUTÉS / performed		RÉSULTATS DE TESTS / results	
HARDNESS	46 - 50 HRC		6 48 - 49 HRC	
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
6	1.55	RB T102137-107-105 (6) RB T102137-107-105 JOB 171725 1 SAC DE PLASTIQUE		

COMMENTAIRES / comments

SALT HARDEN 1550F, 40MIN

TEMPER 600F, 3HRS

RE-TEMPER 650F, 2HRS

Heat treatment (HT) was performed with equipment that meets the requirements of requested specification. All HT operations were performed in compliance with the required HT specification and all verifications have been performed and documented. No unauthorized changes were performed in regards to the HT. We certify that the material was manufactured, sampled, tested and inspected in accordance with the material specification and the purchase order and was found to meet the requirements.

This document and any attached documents may contain confidential or proprietary information and may be subject to export control laws and regulations. If you are not the intended recipient, you are notified that any dissemination, copying of this e-mail and any attachments thereto or use of their contents by any means whatsoever is strictly prohibited. Unauthorized export or re-export is prohibited.

Le traitement thermique (TT) a été fait en utilisant des équipements en conformité avec la spécification demandée. Toutes les opérations de TT ont été faites en conformité avec les requis de la spécification demandée et toutes les vérifications et les tests demandés ont été faites et documentés. Aucun changement n'a été faite par rapport au TT. On certifie que le matériel a été fabriqué, échantillonné, testé et inspecté en accord avec les spécifications du matériel et le bon de commande et le matériel rencontre les exigences spécifiées.

Ce document et les documents qui lui sont joints peuvent contenir des informations confidentielles, être soumis aux réglementations relatives au contrôle des exportations ou ayant un caractère privé. S'ils ne vous sont pas destinés, nous vous signalons qu'il est strictement interdit de les divulguer, de les reproduire ou d'en utiliser de quelque manière que ce soit le contenu. Toute exportation ou réexportation non autorisée est interdite.

APPROUVÉ par / Approved by:

Vincent Corbett



DATE: 2018 02 10

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

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Certificat de Conformité

Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
325894	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
PO039181	N/A	4140		

SPÉCIFICATIONS DU PROCÉDÉ

processing specifications

SEL HARDEN

HARDEN AND TEMPER

EXIGENCE / requirement	SPÉCIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
HARDNESS	46 - 50 HRC	6	48 - 49 HRC

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
6	1,55	RB T102137-107-105 (6) RB T102137-107-105 JOB 171725 1 SAC DE PLASTIQUE

16/3/18

COMMENTAIRES / comments

APPROUVÉ par / Approved by:



DATE: 2018-03-16

APPROUVÉ